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DRAFT

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SOIL SAMPLING PROGRAM STUDY PLAN

ECC Site
Zionsville, Indiana

35.5L30.0
W65230.C3

April 20, 1984

GLT90/77

CONTENTS

Section 1
SAMPLING OBJECTIVES AND LOCATIONS

The general objective of the ECC soil sampling program is to acquire data that will assist the ECC project team in determining the extent of organic hazardous substances contamination present in the soils on the ECC site. Data will be acquired through a combination of field screening with an organic vapor analyzer (OVA), onsite testing with a portable gas chromatograph (GC) and Contract Laboratory Program (CLP) testing. The data generated from the field screening and testing of soil samples will be used in the development of the contaminated soil removal program for the site. The CLP test data will be used as a check of the field data.

Soil boring samples will be obtained for onsite screening and contaminant testing from approximately 100 locations (shown in Figure 1) and were chosen based on a 50-foot square grid spacing. The ECC site was also divided into several areas, each containing a specified number of boring locations. A higher number of samples will be collected in areas where wastes were known to have been spilled or mixed in shallow pits. Fewer samples will be collected in areas not suspected of containing contaminants. The borings are expected to be a maximum of 5 feet deep and will not be advanced below the water table. In addition to the samples obtained from the soil borings, surface soil samples will be collected at various locations around the site.

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Section 2
SAMPLING PROCEDURES

Soil borings will be advanced using chrome-moly or stainless steel hand augers. Soil samples will be collected at 1-foot maximum intervals in each boring until the water table is reached or until samples no longer register a response on the OVA above background levels. Each soil sample will be logged and classified by a geologist or geotechnical engineer and will be composited and stored in clean, numbered glass jars with Teflon liners under the caps. Augers and sampling rods will be washed between each sampling event using a three-rinse procedure consisting of a TSP solution, acetone, and distilled water. Excess drill cuttings and all water will be drummed and stored in a secure area onsite. Boreholes will be grouted with bentonite slurry upon completion of sampling. All boring locations will be surveyed and plotted on the site topographic map.

As part of the sampling procedure, all samples will be screened using headspace analysis techniques with an OVA. The screening technique enables field sampling personnel to determine the depth and concentrations of volatile organics in the soil.

Selected soil samples will be analyzed onsite with a portable GC unit and other selected soil samples will be submitted to the CLP for a complete organic and inorganic scan. Soil samples tested with the portable GC or sent to the CLP will be split-sampled with the responsible parties.

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Section 3
SAMPLING EQUIPMENT

The following equipment will be used for the ECC soil sampling program:

- Four (4) chrome-moly, or stainless steel hand augers.
- U.S. EPA sample containers.
- Coleman sample coolers.
- Five (5) Fifty-five gallon drums.
- Decontamination equipment including a portable steam cleaner.
- Camera and film.
- Foxbor Organic Vapor Analyzer
- Portable GC and necessary support equipment.

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Section 4
SAMPLE HANDLING AND SCREENING

All of the soil samples to be collected at the ECC site are expected to be low or medium concentration samples. The following handling procedures will be utilized to satisfy chain-of-custody requirements.

- The sample team will collect the soil sample, place the sample into the appropriate premarked sample container and measure the organic vapors given off by the sample with the OVA.

- Following the sample screening, the sample will be properly closed and the exterior of the sample container will be decontaminated.

- The sample will then be transferred to the temporary storage facility onsite until final disposition is determined.

Samples placed into temporary storage are subject to the following alternative dispostions:

- Onsite GC testing (approximately 50 samples will be analyzed)

- CLP testing (approximately 25 samples will be analyzed)

- Splitting and transfer to the responsible parties

- Proper disposal by U.S. EPA

Section 5

HEALTH AND SAFETY PLAN

The following health and safety plan (H&SP) has been prepared by E&E, Inc., specifically for the soil sampling activities at the ECC site.

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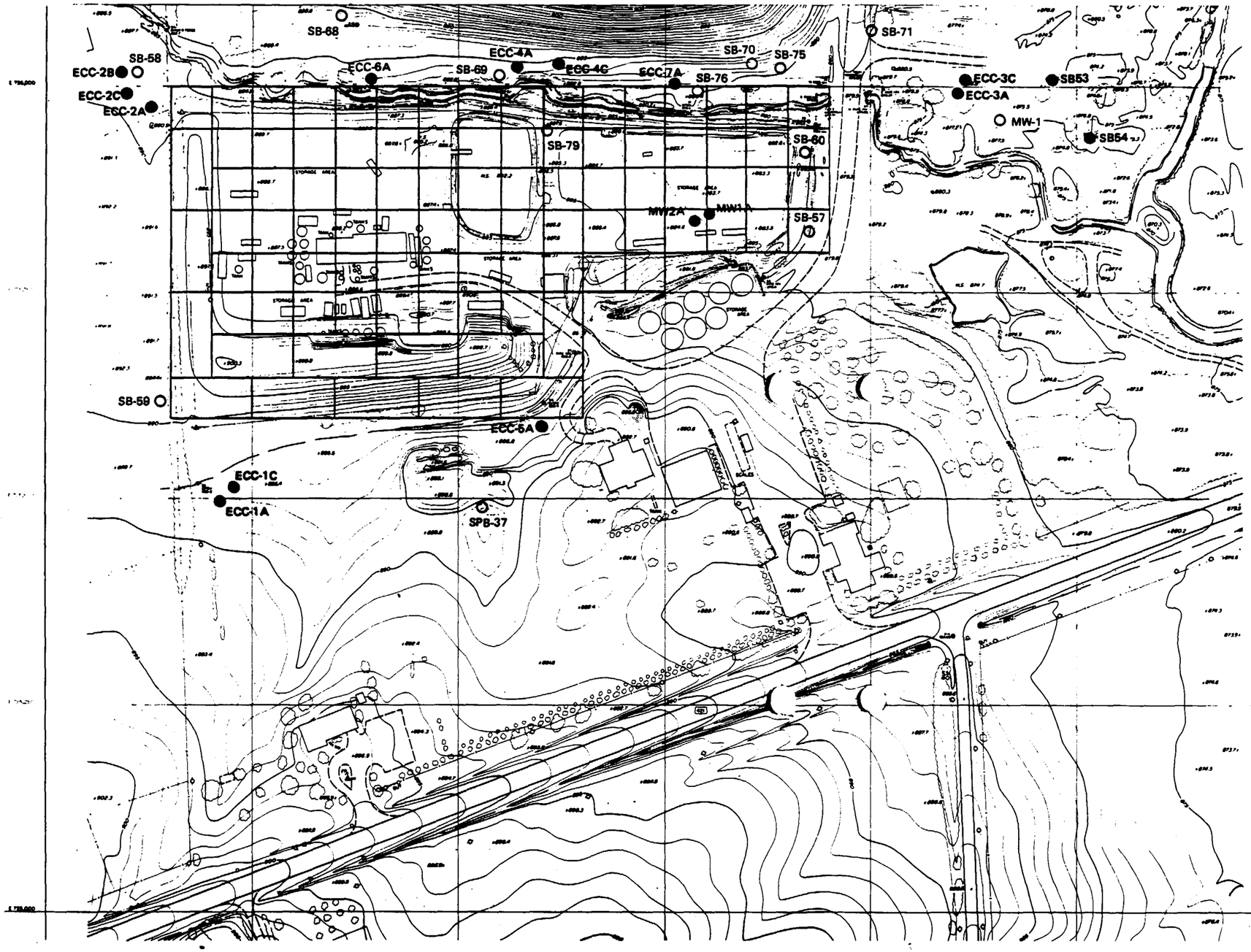

LEGEND

- ● REMEDIAL INVESTIGATION MONITORING WELL INSTALLED JUNE AND SEPTEMBER 1983.

  NORTHSIDE SANITARY LANDFILL MONITORING WELL OR PIEZOMETER

- x—x ECC BOUNDARY FENCE

NOTE: All well locations are approximate

N

0 100 200

50 150

SCALE IN FEET

FIGURE 1
SOIL BORING GRID
ECC SITE